Amendment to the Claims

1 (Currently Amended).   A method for Digital Subscriber Line (DSL) handshaking, the method comprises:

transmitting, by a remote DSL transceiver, first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals comprise a plurality of even numbered carriers eight through thirty and include periodic phase reversal;

detecting, by a central office DSL transceiver, the R-ETONES-REQ to produce detected R-ETONES-REQ;

determining, by the central office DSL transceiver, alignment of a hyperframe in accordance with a Time Compression Multiplexing – Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR);

transmitting, by the central office DSL transceiver, first response signals containing odd numbered carriers in accordance with the alignment of the hyperframe to produce C-TONES-TTR, wherein the first response signals comprise odd numbered carriers five through thirty-one and include periodic phase reversal;

acquiring, by the remote DSL transceiver, TTR synchronization in accordance with the C-TONES-TTR;

upon acquiring TTR synchronization, transmitting, by the remote DSL transceiver, second signals containing even numbered carriers to produce R-TONE-TTR;

in response to the R-TONE-TTR, transmitting, by the central office DSL transceiver, second response signals containing odd numbered carriers to produce C-GALF1-TTR;

in response to the C-GALF1-TTR, transmitting, by the remote DSL transceiver, third signals containing even numbered carriers to produce R-FLAG1-TTR; and

in response to the R-FLAG1-TTR, transmitting, by the central office DSL transceiver, third response signals containing odd numbered carriers to produce C-FLAG1.

2 (Previously Presented).   The method of claim 1, wherein the first signals comprise even numbered carriers eight through thirty less, carriers twelve and fourteen.

3 (Original).   The method of claim 1 further comprises:

subsequent to transmitting the first signals, transmitting, by the remote DSL transceiver, additional first signals from one or more signaling families to produce R-TONES-REQ.

4 (Previously Presented).   The method of claim 1, wherein the first response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.

5 (Original).   The method of claim 1, wherein the acquiring, by the remote DSL transceiver, TTR synchronization further comprises:

continue transmitting, by the remote DSL transceiver, the R-ETONES-REQ until the TTR synchronization is acquired.

6 (Original).   The method of claim 1, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

7 (Original).   The method of claim 1, wherein the second response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.

8 (Withdrawn).   A method for remote Digital Subscriber Line (DSL) transceiver to initiate a DSL handshake, the method comprises:

transmitting first signals for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals comprise a plurality of even numbered carriers less one or more even numbered carriers, and includes periodic phase reversal;

receiving first response signals containing odd numbered carriers in accordance with the alignment of a hyperframe to produce C-TONES-TTR;

acquiring TTR synchronization in accordance with the C-TONES-TTR;

upon acquiring TTR synchronization, transmitting second signals to produce R-TONE-TTR, wherein the second signals comprise a plurality of even numbered carriers less one or more even numbered carriers, and includes periodic phase reversal;

receiving second response signals containing odd numbered carriers to produce C-GALF1-TTR; and

in response to the C-GALF1-TTR, transmitting third signals containing even numbered carriers to produce R-FLAG1-TTR.

9 (Withdrawn).   The method of claim 8, wherein the first signals comprises even numbered carriers eight through thirty less, carriers twelve and fourteen, and includes periodic phase reversal.

10 (Withdrawn).   The method of claim 8 further comprises:

subsequent to transmitting the first signals, transmitting additional first signals from one or more signaling families to produce R-TONES-REQ.

11 (Withdrawn).   The method of claim 8, wherein the acquiring TTR synchronization further comprises:

continue transmitting the R-ETONES-REQ until the TTR synchronization is acquired.

12 (Withdrawn).   The method of claim 8, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

13 (Withdrawn).   A method for central office Digital Subscriber Line (DSL) transceiver to participate in a DSL handshake, the method comprises:

receiving first for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals comprise a plurality of even numbered carriers less one or more even numbered carriers, and includes periodic phase reversal;

detecting the R-ETONES-REQ to produce detected R-ETONES-REQ;

determining alignment of a hyperframe in accordance with a Time Compression Multiplexing – Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR);

transmitting first response signals in accordance with the alignment of the hyperframe to produce C-TONES-TTR, wherein the first response signals comprise a plurality of odd numbered carriers less one or more odd numbered carriers, and includes periodic phase reversal;

receiving second signals to produce R-TONE-TTR, wherein the second signals comprise a plurality of even numbered carriers less one or more even numbered carriers, and includes periodic phase reversal;

in response to the R-TONE-TTR, transmitting second response signals to produce C-GALF1-TTR, wherein the second response signals comprise a plurality of odd numbered carriers less one or more odd numbered carriers, and includes periodic phase reversal;

receiving third signals containing even numbered carriers to produce R-FLAG1-TTR; and

in response to the R-FLAG1-TTR, transmitting third response signals containing odd numbered carriers to produce C-FLAG1.

14 (Withdrawn).   The method of claim 13, wherein the first signals comprises even numbered carriers eight through thirty less, carriers twelve and fourteen, and includes periodic phase reversal.

15 (Withdrawn).   The method of claim 13, wherein the first response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine, and including periodic phase reversal.

16 (Withdrawn).   The method of claim 13, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

17 (Withdrawn).   The method of claim 13, wherein the second response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.

18 (Withdrawn).   A remote Digital Subscriber Line (DSL) transceiver capable of initiating a DSL handshake, the remote DSL transceiver comprises:

    processing module; and

    memory operably coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to:

        transmit first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals include periodic phase reversal;

        receive first response signals containing odd numbered carriers in accordance with the alignment of a hyperframe to produce C-TONES-TTR, wherein the first response signals include periodic phase reversal;

        acquire TTR synchronization in accordance with the C-TONES-TTR;

        upon acquiring TTR synchronization, transmit second signals containing even numbered carriers to produce R-TONE-TTR;

        receive second response signals containing odd numbered carriers to produce C-GALF1-TTR; and

        in response to the C-GALF1-TTR, transmit third signals containing even numbered carriers to produce R-FLAG1-TTR.

19 (Withdrawn).   The remote DSL transceiver of claim 18, wherein the first signals comprises even numbered carriers eight through thirty less, carriers twelve and fourteen, and includes periodic phase reversal.

20 (Withdrawn).   The remote DSL transceiver of claim 18, wherein the memory further comprises operational instructions that cause the processing module to:

subsequent to transmitting the first signals, transmit additional first signals from one or more signaling families to produce R-TONES-REQ.

21 (Withdrawn).   The remote DSL transceiver of claim 18, wherein the memory further comprises operational instructions that cause the processing module to acquire the TTR synchronization by:

continue transmitting the R-ETONES-REQ until the TTR synchronization is acquired.

22 (Withdrawn).   The remote DSL transceiver of claim 18, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

23 (Withdrawn).   A central office Digital Subscriber Line (DSL) transceiver capable of initiating a DSL handshake, the central office DSL transceiver comprises:

processing module; and

memory operably coupled to the processing module, wherein the memory stores operational instructions that cause the processing module to:

receive first signals containing even numbered carriers for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals comprise even numbered carriers eight through thirty less, carriers twelve and fourteen;

detect the R-ETONES-REQ to produce detected R-ETONES-REQ;

determine alignment of a hyperframe in accordance with a Time Compression Multiplexing – Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR);

transmit first response signals containing odd numbered carriers in accordance with the alignment of the hyperframe to produce C-TONES-TTR;

receive second signals containing even numbered carriers to produce R-TONE-TTR;

in response to the R-TONE-TTR, transmit second response signals containing odd numbered carriers to produce C-GALF1-TTR;

receive third signals containing even numbered carriers to produce R-FLAG1-TTR; and

in response to the R-FLAG1-TTR, transmit third response signals containing odd numbered carriers to produce C-FLAG1.

24 (Withdrawn).   The central office DSL transceiver of claim 23, wherein the first signals include periodic phase reversal.

25 (Withdrawn).   The central office DSL transceiver of claim 23, wherein the first response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine, and including periodic phase reversal.

26 (Withdrawn).   The central office DSL transceiver of claim 23, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

27 (Withdrawn).   The central office DSL transceiver of claim 23, wherein the second response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.

28 (New).   A method for Digital Subscriber Line (DSL) handshaking, the method comprises:

transmitting, by a remote DSL transceiver, first signals for a predetermined period of time to initiate the DSL handshaking to produce R-ETONES-REQ, wherein the first signals comprise a plurality of even numbered carriers and include periodic phase reversal;

detecting, by a central office DSL transceiver, the R-ETONES-REQ to produce detected R-ETONES-REQ;

determining, by the central office DSL transceiver, alignment of a hyperframe in accordance with a Time Compression Multiplexing – Integrated Service Digital Network (TCM-ISDN) Timing Reference (TTR);

transmitting, by the central office DSL transceiver, first response signals in accordance with the alignment of the hyperframe to produce C-TONES-TTR, wherein the first response signals comprise a plurality of odd numbered carriers and include periodic phase reversal;

acquiring, by the remote DSL transceiver, TTR synchronization in accordance with the C-TONES-TTR;

upon acquiring TTR synchronization, transmitting, by the remote DSL transceiver, second signals to produce R-TONE-TTR, wherein the second signals comprise a plurality of even numbered carriers and include periodic phase reversal;

in response to the R-TONE-TTR, transmitting, by the central office DSL transceiver, second response signals to produce C-GALF1-TTR, wherein the second response signals comprise a plurality of odd numbered carriers and include periodic phase reversal;

in response to the C-GALF1-TTR, transmitting, by the remote DSL transceiver, third signals containing even numbered carriers to produce R-FLAG1-TTR; and

in response to the R-FLAG1-TTR, transmitting, by the central office DSL transceiver, third response signals containing odd numbered carriers to produce C-FLAG1.

29 (New).   The method of claim 28, wherein the first signals comprise even numbered carriers eight through thirty less, carriers twelve and fourteen.

30 (New).   The method of claim 29 further comprises:

subsequent to transmitting the first signals, transmitting, by the remote DSL transceiver, additional first signals from one or more signaling families to produce R-TONES-REQ.

31 (New).   The method of claim 30, wherein the first response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.

32 (New).   The method of claim 31, wherein the acquiring, by the remote DSL transceiver, TTR synchronization further comprises:

continue transmitting, by the remote DSL transceiver, the R-ETONES-REQ until the TTR synchronization is acquired.

33 (New).   The method of claim 32, wherein the second signals comprises even numbered carriers eight through thirty, less carriers twelve and fourteen.

34 (New).   The method of claim 33, wherein the second response signals comprises odd numbered carriers five through thirty-one, less carriers seven and nine.